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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER NUMBER
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16

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/220,142

Applicant(s)

Friend et al.

Examiner

Ardin Marschel

Group Art Unit

1631



☒ Responsive to communication(s) filed on Jun 30, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-50, 58-64, 72-78, and 89-106 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-50, 58-64, 72-78, and 89-106 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, 233-284 (3 sheets)

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

The art unit designated for this application has changed. Applicant(s) are hereby informed that future correspondence should be directed to Art Unit 1631.

Applicants' arguments, filed 6/30/00 and 9/7/00, have been fully considered and they are deemed to be persuasive to overcome the previous rejections of record. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. However, reconsideration of the pending claims has resulted in the following rejections and/or objections which are newly applied. They constitute the complete set presently being applied to the instant application.

Claims 1-50, 58-64, 72-78, and 89-106 are rejected, as discussed below, under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The cooperativity between certain limitations in claim 1, for example, is unclear causing the claim to be vague and indefinite. In claim 1, lines 2 and 7-8, the phrase "common response motifs" is present. A possible interpretation is that these motifs are the co-varying cellular constituents as described in lines 6-7 of claim 1. This, however, is not clearly stated in the claim. Such an assumption leaves open the interpretation of the claim to include the definition of a common

response motif to be a single cellular constituent that is measured in common in the various response profiles but are not necessarily co-varying. Another unclarity is what exactly is the content of the consensus profile of the last line of claim 1. Is it all of the measured cellular components or is it only the ones that co-vary with a set of perturbations? What about the practice of different perturbations wherein different co-varying components are measured? Lastly, in lines 4-7 of claim 1, the closed claim language term "consists" is present in line 6 which is interpretable as limiting the sets of cellular constituents that are measured as already being co-varying thus preventing the claim practice from including the measurement of a variety of cellular constituents some of which may not co-vary and some may co-vary. Clarification of what the metes and bounds of the sets of cellular constituents are as well as the other issues noted above is requested via clearer claim wording. It is noted that all of the independent claims, such as claims 29, 38, 39, 44, 58, 72, and 100 and those dependent therefrom due to their dependence include one or more of these above noted unclarities.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or

on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 10-13, 19-21, 27-34, 38, 44-46, 72-76, 89-91, 97, 98, and 100-102 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Hoffmaster et al. (Inf. and Imm., Vol. 65, No. 8, pp. 3091-3099[1997]).

Hoffmaster et al. utilizes 2-D electrophoresis in order to measure the protein expression of a multitude of proteins simultaneously from each cell sample. These proteins are cellular constituents as required in instant claim 1, for example. Each of these gels depict a profile of a multitude of proteins such as shown in Figure 1 on page 3094 of the reference. Each of these profiles is deemed to be a response profile as required in the instant claims. In the continuation of Figure 1 on page 3095 several sections of different response profiles are shown with arrows pointing to certain proteins of interest. At least four (a plurality as required in claim 1, for example) different perturbations are shown, one air growth, one 5% CO₂ growth, one atxA⁻ mutation, and, lastly, atxA⁻ mutation. Thus, limitations (i) and (ii) of instant claim 1 are disclosed in the reference. A common response motif that is obtained from these measurements is disclosed on page 3093, second column, first full paragraph, wherein seven spots in box A represent proteins which are noted as being atxA and CO₂ dependent, thus documenting a consensus profile for these perturbations. Thus, instant claim 1

is anticipated by the reference. The cluster analysis limitation of claims 12 and 13 are deemed to be met in the reference by the detection of co-varying clusters of gene products. Consideration of the instant specification has not revealed a requirement that limits the concept of cluster analysis to prevent this interpretation. The remaining claims rejected hereinunder are directed to subspecies of the effects and groupings of the profile data which are apparent from observing Figure 1 of the reference and associated discussion.

Several citations were lined through on the enclosed PTO Forms 1449 due to these citations lacking a date of publication. Applicants, however, are hereby informed that the following disclosures have been considered: U.S. application serial numbers 09/076,668; 09/292,657; and 09/540,806; and U.S. provisional application 60/127,223.

No claim is allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703) 308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

Serial No. 09/220,142

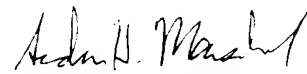
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Art Unit: 1655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Patent Analyst, Tina Plunkett, whose telephone number is (703) 305-3524.

November 17, 2000


ARDIN H. MARSCHEL
PRIMARY EXAMINER